#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter Report No: WIR-017863

Address: 333 Burma Road Date Inspected: 16-Oct-2010

City: Oakland, CA 94607

Project Name: SAS Superstructure OSM Arrival Time: 700
Prime Contractor: American Bridge/Fluor Enterprises, a JV OSM Departure Time: 1900

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island Location: Shanghai, China

**CWI Name: CWI Present:** Yes An Qing Xiang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 Component: Orthotropic Box Girder( OBG)

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD** 

**DCP** 

Segment # 10AW ~10BW (After Bolting Offset)

This QA Inspector performed Individual Inspection for the T-Ribs to T-Ribs after Bolting Offset between Segment 10AW to 10BW between Panel Point (PP) 88 and PP 89(Counter Weight Side total 19 Nos. T-Ribs) and (Cross Beam side Total 19 Nos. T-Ribs) and at Bottom Panel (Total 18 Nos. T-Ribs) for Vertical Offset. Details of these locations can be found on CT / QA document titled "OBG DCP Hand Measurement Survey: WT Stiffener Offset/ Transverse Segment Splice". This QA recorded the measurements and submitted the information to CT / QA lead inspector for review.

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#### Segment # 10AW

This QA inspector observed ZPMC qualified welding personnel identified as 066163 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG059E-038; located On Orthotropic Box Girder (OBG) Corner Assembly Deck Plate to Stiffener (X3S & X8E) Weld; excavated weld due to Flatness rejected areas. The Critical Welding Repair Report (CWRR) was B-CWR2004. ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 4G (4F) FCM Repair-1 See the attached Photo.

#### Segment # 11AW ~ 11BW

This QA inspector observed ZPMC qualified welding personnel identified as 040611 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW11-005; located On Orthotropic Box Girder (OBG) Bottom Plate to Bottom Plate Transverse CJP Weld; excavated weld due to Ultrasonic rejected areas. The Welding Repair Report (WRR) was B-WR15990. ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 4G (4F) FCM Repair-1 See the attached Photo.

#### Segment # 11AW ~ 11BW

This QA inspector observed ZPMC qualified welding personnel identified as 046709 perform Shielded Metal Arc Welding (SMAW), weld joint identified as CA079-006 & CA083-002; located On Orthotropic Box Girder (OBG) Deck Plate to Edge Plate Transverse CJP Weld ; excavated weld due to Ultrasonic rejected areas. The Welding Repair Report (WRR) was B-WR16008. ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 2G (2F) FCM Repair-1.

#### Segment # 11AW ~ 11BW

This QA inspector observed ZPMC qualified welding personnel identified as 040611 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW11B-002; located On Orthotropic Box Girder (OBG) Deck Plate to Edge Plate Transverse CJP Weld ; excavated weld due to Ultrasonic rejected areas. The Welding Repair Report (WRR) was B-WR16012. ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 4G (4F) FCM Repair-1.

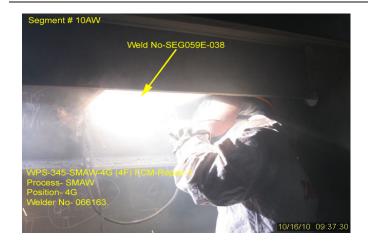
#### Segment # 11BW

This QA inspector observed ZPMC qualified welding personnel identified as 040609 perform Flux Core Arc Welding (FCAW), weld joint identified as OBW11-026; located On Orthotropic Box Girder (OBG) Edge Plate to Connection Plate CJP Weld. ZPMC Quality Control (QC) is identified as Mr. Wang Zhu. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-TC-U4b-F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Prabhune,Manoj	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer